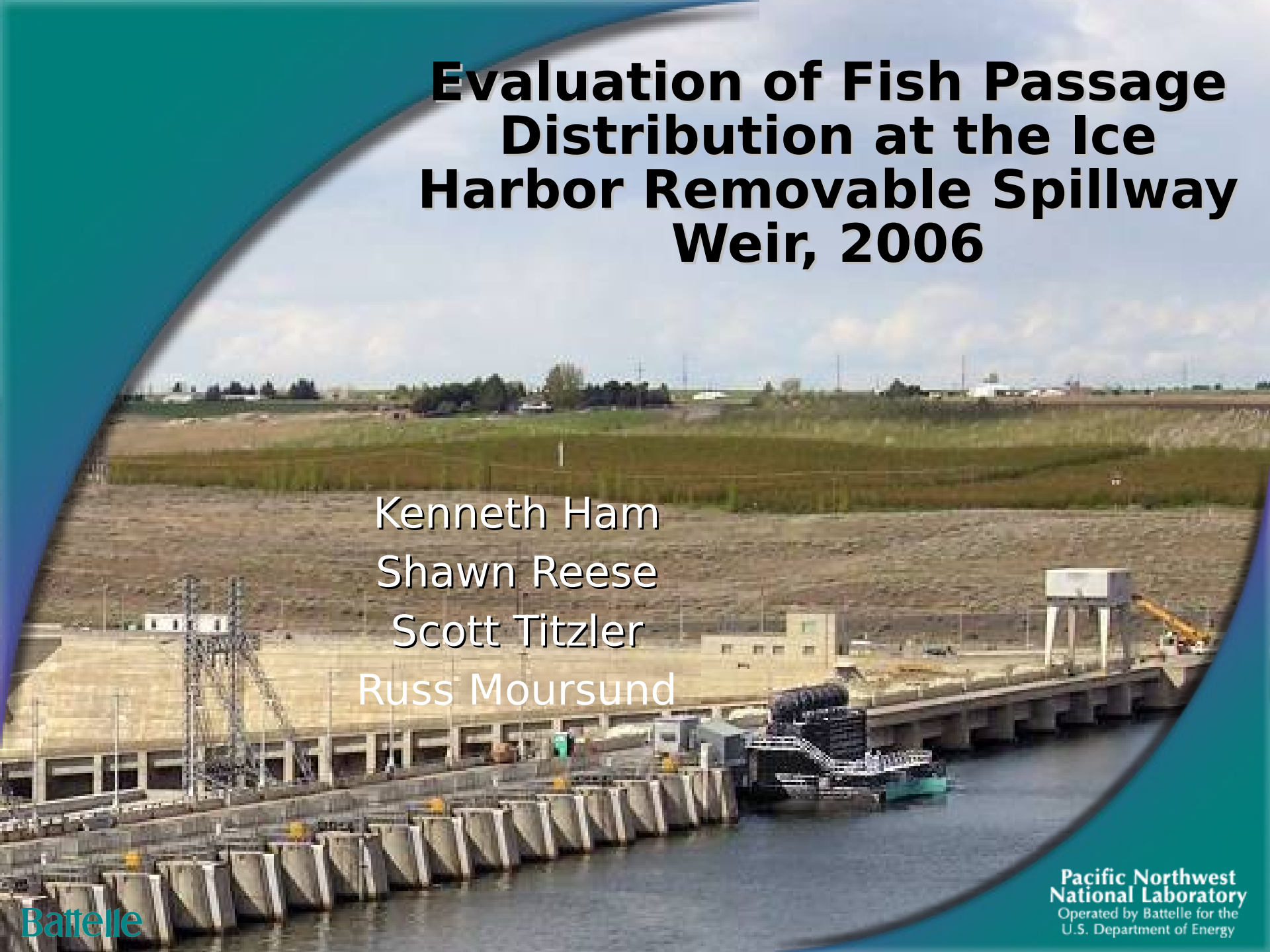
Evaluation of Fish Passage Distribution at the Ice Harbor Removable Spillway Weir, 2006



Kenneth Ham
Shawn Reese
Scott Titzler
Russ Moursund

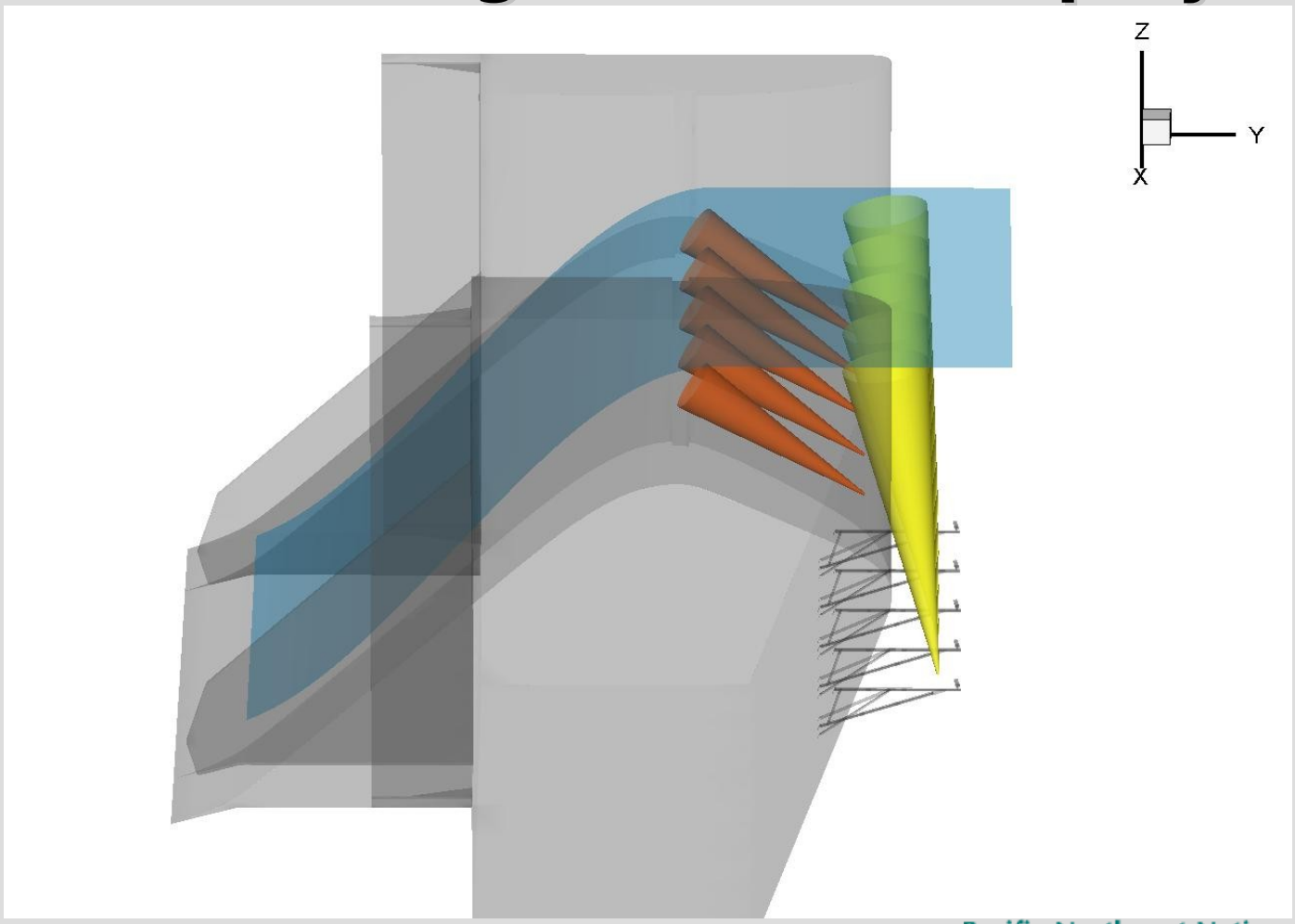
Battelle

Pacific Northwest National Laboratory
Operated by Battelle for the U.S. Department of Energy

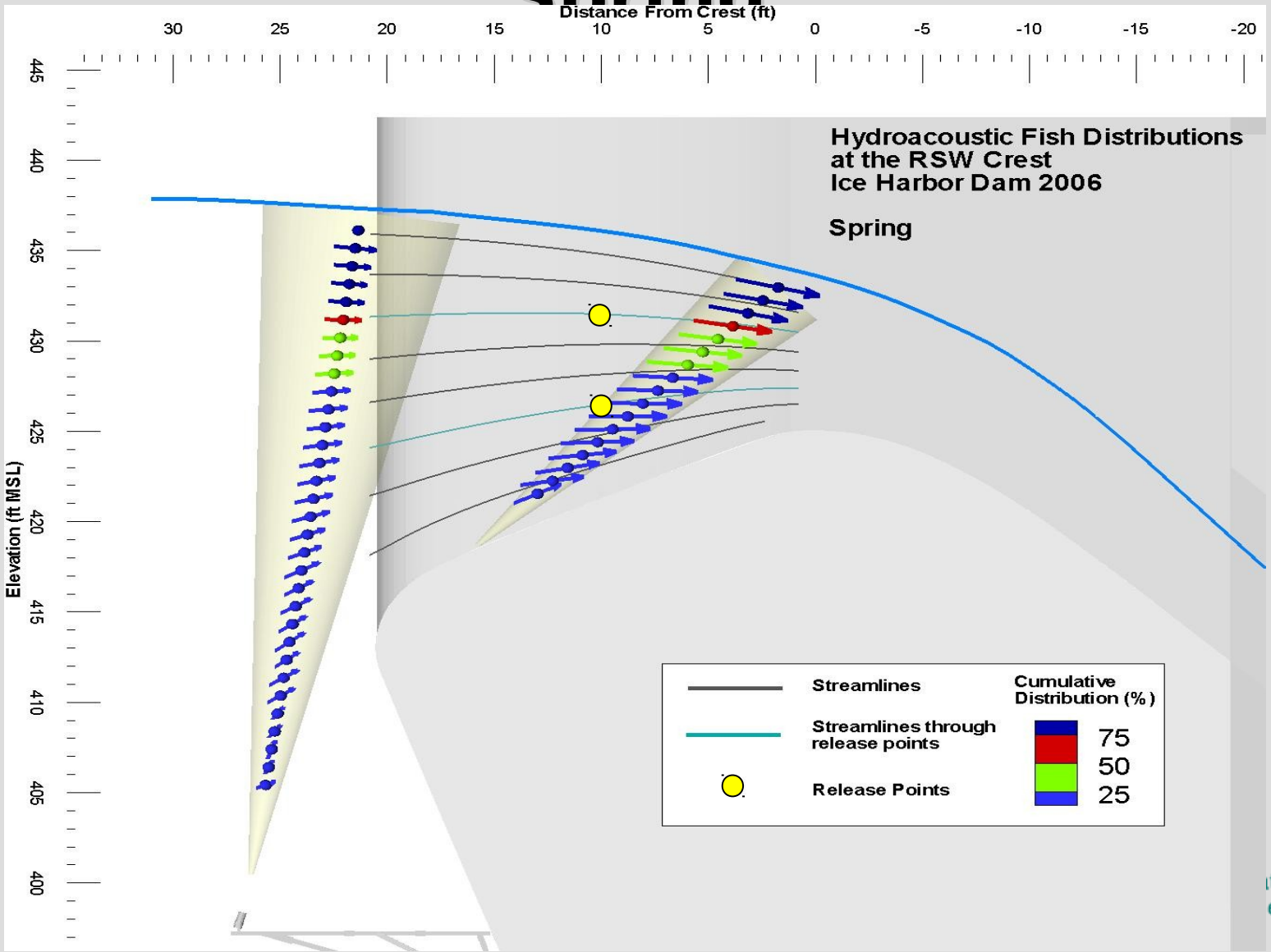
Objective

- Evaluate the distribution of fish approaching and passing the Ice Harbor Removable Spillway Weir (RSW) relative to balloon tag and sensor fish device release elevations

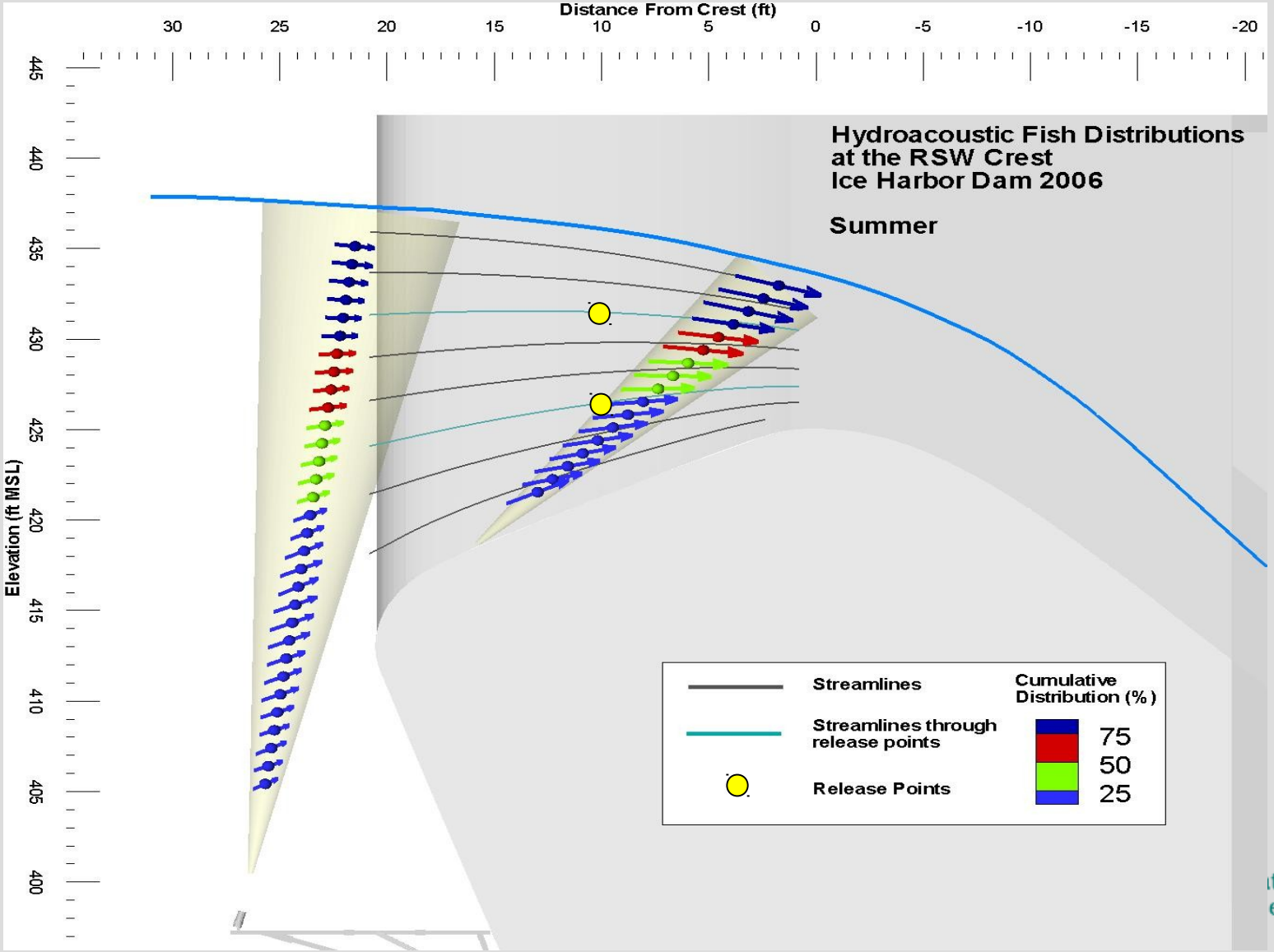
Methods:
2006 RSW Sampling Included Frame Mount and New Magnet-Mount Deployments



Results: Fish Pass Near the Surface in Spring



Fish Passage is Deeper in Summer



Vertical Distribution At Release Pipe Similar Across Deployments

	Release elevation (ft above crest)	Upstream Deployment	Downstream Deployment
Spring	1.5	11%	9%
	6.5	69%	88%
Summer	1.5	27%	24%
	6.5	80%	89%

Conclusions

- Fish pass near the RSW crest
  - 11% and 27% at or below the 1.5ft release point in the spring and summer, respectively
  - Similar results regardless of deployment
- Late Summer conditions increase the proportion passing near the crest
  - Higher RSW Proportion of flow (less tainter spill) would likely result in a higher proportion of passage
  - Migrants distributed nearer RSW crest than other periods